

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
7 October 2004 (07.10.2004)

PCT

(10) International Publication Number
WO 2004/086317 A3

(51) International Patent Classification⁷: **A24F 27/14,**
B65H 3/00

[US/US]; 12912 Madrona Leaf Court, Grass Valley, CA
95945 (US).

(21) International Application Number:
PCT/US2004/009423

(74) Agent: LUTHER, Barbara, J.; Quarles & Brady Streich
Lang, LLP, One Renaissance Square, Two North Central
Avenue, Phoenix, AZ 85004-2391 (US).

(22) International Filing Date: 24 March 2004 (24.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/457,427 24 March 2003 (24.03.2003) US

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(71) Applicant (for all designated States except US): ABU-
DANZA, INC. [US/US]; P.O.Box 1393, Kailua, HI 96732
(US).

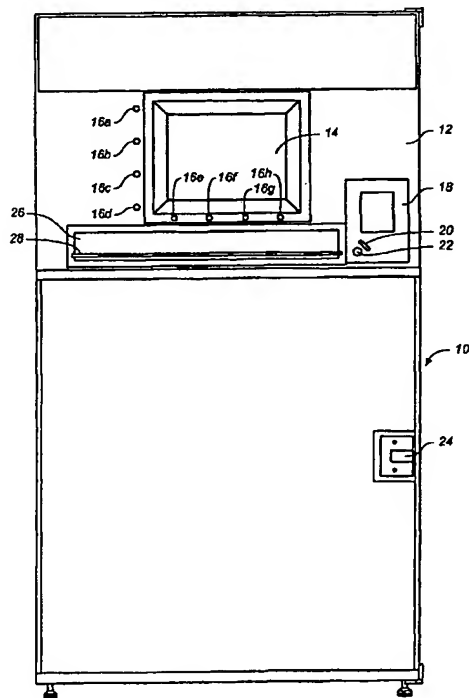
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

(72) Inventor; and

(75) Inventor/Applicant (for US only): **WARD, Glen**

[Continued on next page]

(54) Title: HOT FOOD VENDING MACHINE



(57) Abstract: A heated food vending machine has a front (12) with a slot (26) for dispensing food and a slot (20) for accepting money. There is a video screen (14) and several depressible buttons (16a-16h). Inside the machine is a refrigerator with a roof with an openable door (34) and a fastenable door (40) for refilling with food. Inside the refrigerator is a rotating apparatus (30) with stations (52) supporting stacks of food. An elevator (48) elevates a station (52) raising the top pan above the door (34). The food cover is removed by a special roller apparatus (62, 64). On top of the refrigerator are arms (56) radiating from a central hub and are rotated horizontally.

WO 2004/086317 A3



Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
13 October 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/09423

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A24F 27/14 , B65H 3/00

US CL : 221/150R ,192

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 221/150R ,192,7,9,13.150HC

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4,783,582 A (WADA et al) 08 November 1988 (08.11.1988) see the entire document	1-5
A,E	US 6,808,083 B1 (ROEKENS et al) 26 October 2004 (26.10.2004) see the entire document	1-5

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

26 July 2005 (26.07.2005)

Date of mailing of the international search report

31 AUG 2005

Name and mailing address of the ISA/US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Facsimile No. (703) 305-3230

Authorized officer

Kenneth W. Noland

Telephone No. (703) 305-9745